



Technology Labs

Mobile Personal Services Platform

The Accenture Personal Performance Coach points the way toward a new generation of mobile personal services

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Alex Kass,
Senior Researcher
Accenture
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Imagine a world where a device in your pocket would let you know if you are talking too much on a sales call, interrupting your colleagues too frequently, managing your time effectively, or getting enough sleep. Consider if that same device could alert a diabetic to take food or medication when needed—and even guide that person to the closest drugstore that has their medication in stock at the best price.

Thanks to Accenture Technology Labs' research in Human-Computer Interaction, that device in your pocket, which you may currently think of as a mobile phone, may soon become a powerful new service-delivery channel. Our researchers are working to realize this vision by creating software for a Mobile Personal Services Platform that will make it easy for content providers to deliver this new generation of personal services. As a demonstration of the power of this platform, we have developed a prototype to help users improve their personal effectiveness both at work and at home. The Labs' Personal Performance Coach determines if your behavior is aligned with goals you've established, provides coaching when needed, and will eventually

also facilitate commercial transactions to address your needs as it detects them.

"The mobile phone is ceasing to be just a phone," notes Alex Kass, a senior researcher in the Labs. "We believe that the next wave of innovation will exploit the mobile device as a means to deliver new services enabled by its omnipresence on your body, and its growing awareness of your physical environment. This will enable companies to better serve customers, help employees improve their professional effectiveness, and allow consumers to adjust their behavior to achieve personal objectives."

Mobile phones today have processor speeds, display resolution and connectivity exceeding those found in PCs just a few years ago, and many work in combination with sensors too, from wireless headsets to GPS and digital bio sensors.

"A new generation of powerful, wearable computers is upon us and will change the way we work and live," says Kass. "They can help us better understand our own behavior and improve our personal and professional effectiveness."

How it works

The first application developed for the Personal Performance Coach prototype is focused on making people more effective in professional conversations, such as team meetings, sales calls or negotiation sessions. The prototype collects information, including voice streams and location data. Wireless connections send the data from a participant's phone to a server that integrates and analyzes the data, fusing information from various devices to create a meaningful picture of the conversation.

The system then matches observed behavior against performance goals in near real-time, and makes suggestions about how to better achieve behavioral targets. These suggestions are relayed to the user on the phone's screen or by whispering advice into the user's headset. The prototype can also generate more detailed feedback for later review through a user's desktop PC at the end of the day. For instance, a salesperson could review his performance through his PC, with detailed analyses of trends and correlations from all of his meetings that day. It might show him, for example, that he was more effective in meetings held early in the day, and he tended to drone on or interrupt too much late in the afternoon.

Kass believes that this kind of service will take human performance enhancement to a new level. "Whereas traditional training teaches the right thing to do and then hopes that the trainee executes correctly, the Personal Performance Coach can measure actual behavior against goals, and then alert the user when execution is veering off course. And the technology will eventually go beyond tracking simple conversation

patterns; it will be able to help users see subtler cross-contextual issues. For example, it might help a user realize his behavior becomes less effective when he skips lunch, or that he interrupts people less after a good night's sleep."

Capitalizing on trends in mobility

Accenture foresees companies in a wide variety of industries exploiting the enhanced awareness of the body, behavior and physical environment of the wearer these devices afford, either by helping their employees improve personal performance, or by offering services to help customers live better lifestyles. For example, a healthcare company might provide a service that would detect if a user was making too many fast-food stops, not frequenting the gym as often as needed or had higher blood pressure than normal, and then make real-time suggestions to help achieve a health-related goal.

"By deploying these services, companies have an opportunity to pull ahead of the competition by increasing customer loyalty and improving employee efficiency," says Kass. "We're helping to bring this about by developing a platform that will make it easy to develop these services, and by creating prototypes that demonstrate the value. We'll be in a position to help companies quickly develop differentiated mobile applications as market demand for these services emerges."

About Accenture Technology Labs

Accenture Technology Labs, the dedicated technology research and development (R&D) organization within Accenture, has been turning technology innovation into business results for 20 years. The Labs create a vision of how technology will shape the future and invent the next wave of cutting-edge business solutions. Working closely with Accenture's global network of specialists, Accenture Technology Labs helps clients innovate to achieve high business performance. The Labs are located in Chicago, Illinois; Palo Alto, California; Sophia Antipolis, France; and Bangalore, India. For more information, please visit our website at www.accenture.com/techlabs.

About Accenture

Accenture is a global management consulting, technology services and outsourcing company. Committed to delivering innovation, Accenture collaborates with its clients to help them become high-performance businesses and governments. With deep industry and business process expertise, broad global resources and a proven track record, Accenture can mobilize the right people, skills, and technologies to help clients improve their performance. With approximately 146,000 people in 49 countries, the company generated net revenues of US\$16.65 billion for the fiscal year ended Aug. 31, 2006. Its home page is www.accenture.com.